

Title (en)

METHOD AND APPARATUS FOR INJECTING A GAS INTO A TWO-PHASE STREAM

Title (de)

VERFAHREN UND VORRICHTUNG ZUR EINSPRITZUNG VON GAS IN EINEN ZWEIPHASENSTROM

Title (fr)

PROCEDE ET DISPOSITIF D'INJECTION D'UN GAZ DANS UN FLUX A DOUBLE PHASE

Publication

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Application

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Abstract (en)

[origin: US2006040223A1] Apparatus and methods for improved combustion of oxygen and a mixture of a non-gaseous fuel, which includes providing: 1) a source of a mixture of non-gaseous fuel and conveying gas; 2) a source of oxygen; 3) a burner operatively associated with a combustion chamber; 4) a fuel duct in fluid communication with the source of mixed non-gaseous fuel and conveying gas; 5) a tubular oxygen lance fluidly communicating with the source of oxygen; and 6) at least two injection elements in fluid communication with the source of oxygen. The fuel duct includes a portion that extends along an axis towards the burner. The lance is disposed along the axis and has a diameter D. The injection elements are configured to inject oxygen into, and mix therewith, a flow of the mixture upstream of, or at, the burner. At least one of the injection elements receives oxygen from the lance. The injection elements are spaced apart by a distance X, which is greater than the length of diameter D.

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